REMARKS/ARGUMENTS

Favorable reconsideration of this application as presently amended and in light of the following discussion is respectfully requested. Claims 1-7 are pending, Claims 1-7 having been amended and Claim 8 having been canceled without prejudice or disclaimer.

In the outstanding Office Action, Claims 7 and 8 were objected to; Claims 1-8 were rejected under 35 U.S.C. § 101 as being directed to non-statutory subject matter; Claims 1-8 were rejected under 35 U.S.C. § 112, second paragraph; and Claims 1-8 are rejected as being anticipated by Stubbs, U.S. Patent No. 5,327,358.

In reply, Claims 1-7 have been amended, consistent with 35 U.S.C. § 101 and § 112, second paragraph. Claim 8 has been canceled, as it was directed to merely a computer program.

It is believed that Claims 1-7 comply with 35 U.S.C. § 101, as Claims 1-6 are directed to a computer implemented method of identifying a boundary condition between components of an object subjected to finite-element analysis and Claim 7 is directed to a computer program product having features corresponding to Claim 1.

Independent Claim 1 as amended, provides a useful concrete and tangible result, as it provides a method for identifying the boundary condition of elements that are positioned between a plurality of components subject to a computer implemented finite-element method model. Finite-element analyses are common engineering analysis tools for evaluating the structural behavior of objects when exposed to forces. As an example, this computer implemented method provides a real-world, tangible result, in that it provides a mechanism by which the vibration or motion of the components can be precisely and quantitatively handled and be precisely performed automatically, without the need for human intervention. This is significant, because in conventional systems, when complicated mode vectors appear, only skilled operators know how to deal with such systems and occurrences (specification

pages 5 and 6). In contrast, the present invention provides a mechanism by which an automated and computer-implemented method is obtainable for identifying the boundary conditions of elements based on the extracted, calculated node vector and the natural frequency or resonant frequency corresponding to the mode vector. Thus, it is believed that Claims 1-7, as amended, comply with 35 U.S.C. §101, and §112, second paragraph.

Applicants respectfully traverse the rejection of Claim 1 based on Stubbs. The outstanding Office Action asserts that Stubbs discloses all the elements of the presently claimed invention. Applicants respectfully traverse this rejection.

Amended Claim 1 requires the step of extracting an extracted, calculated mode vector of the plurality of calculated mode vectors having a degree of correlation at or above a predetermined threshold, where the degree of correlation is relative to an experimental mode vector obtained via experiment. Stubbs teaches opposite that by explaining that the system according to Stubbs "it becomes unnecessary to correlate actual measured data to the theoretical model" (column 9, lines 22-23). Furthermore, Claim 1 is directed to identifying the boundary condition of particular elements, where the elements are positioned between a plurality of components. The identification is based on the extracted, calculated mode vector and natural or resonance frequency corresponding to the extracted, calculated mode vector. Stubbs simply does not teach or suggest this feature.

The three sections cited in the Office Action in Stubbs namely column 5, lines 30-35, column 9, lines 48-63 and column 35, lines 11-34, neither teach nor suggest these features of amended Claim 1. The discussion at column 5, Table 1, merely identifies respective mode number values. The discussion at column 9, although describing a dynamic finite element analysis, neither teaches nor suggests the claimed extracting and identifying steps as discussed above in amended Claim 1. The discussion at column 35 does not appear relevant at all to the presently claimed invention. Therefore, it is respectfully submitted that amended

Claim 1 patentably defines over <u>Stubbs</u>. As each of Claims 2-6 depend from Claim 1, it is respectfully submitted that these claims also patentably define over <u>Stubbs</u>. Although of a different statutory class, it is respectfully submitted that Claim 7 also patentably defines over <u>Stubbs</u> for substantially the same reasons as discussed above with regard to Claim 1.

Consequently, in view of the preset amendment and in light of the foregoing comments, it is respectfully submitted that the invention defined by Claims 1-7, patentably defines over the asserted prior art. The present application is therefore believed to be in condition for formal allowance and an early and favorable reconsideration of this application is therefore requested.

Respectfully submitted,

OBLON, SPIVAK, McCLELLAND,
MAIER & NEUSTADT, P.C.

Norman F. Oblon
Attorney of Record
Registration No. 24,618

Bradley D. Lytle
Registration No. 40,073

Scott A. McKeown
Registration No. 42,866

Customer Number

22850

Tel: (703) 413-3000
Fax: (703) 413 -2220
(OSMMN 03/06)
I:\ATTY\BDL\24s\241075US\241075US.AM.DOC

8